

aggressive NHL, at a reasonable cost, in the perspective of the Italian NHS.

CN3

**COST-EFFECTIVENESS OF IMATINIB VERSUS INTERFERON (IFN- $\alpha$ ) PLUS LOW-DOSE CYTARABINE (ARA-C) FOR NEWLY DIAGNOSED CHRONIC PHASE CHRONIC MYELOID LEUKEMIA (CML) IN THE THE NETHERLANDS**

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**OBJECTIVE:** To determine the incremental cost-effectiveness ratio (ICER) of imatinib versus IFN- $\alpha$  + Ara-C in newly diagnosed, chronic phase CML patients. **METHODS:** An economic simulation model was developed in Microsoft Excel to estimate expected total cost, survival and quality-adjusted survival for patients treated with imatinib or IFN- $\alpha$  + Ara-C. This model is based on data collected in the International Interferon versus St1571 Study (IRIS) supplemented with data from international literature and clinical experts. This model was adapted to the Dutch situation. Utility weights and unit costs for medical resources were assigned over time according to disease status and treatment regimen. Long-term survival estimation was based on historical relationships between cytogenetic response and life expectancy with IFN- $\alpha$ . The analysis incorporated first-order and second-order uncertainty. Sensitivity analyses were also performed to evaluate the influence of individual parameters. The base year for the cost analysis was 2002 and only direct medical costs were considered. **RESULTS:** Mean undiscounted survival for patients receiving imatinib was estimated to be 15.20 years, for the IFN- $\alpha$  + Ara-C patients this was 9.10 years. When both costs and effects were discounted at 4% the incremental gain in quality adjusted life years (QALYs) was 3.36. Incremental discounted lifetime costs were €150,041 higher for patients receiving imatinib. This resulted in an ICER of 44,728€ per QALY (95% confidence interval; 41,044€, 49,505€). These results were most sensitive to assumptions that affected relative duration and costs of IFN- $\alpha$  or imatinib. **CONCLUSION:** The introduction of imatinib as first line treatment option results in a gain of 3.36 QALYs. However, this occurred at a considerable cost resulting in an ICER of 44,728€ per QALY. In general, this ratio is considered to be high by Dutch registration and reimbursement authorities. However, in the process of registration and reimbursement other aspects like budget impact and disease severity also play an important role.

CN4

**COST-EFFECTIVENESS OF SAMARIUM-153-EDTMP COMPARED TO CONVENTIONAL PAIN THERAPY IN GERMANY**

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**OBJECTIVES:** Patients with pain due to multiple bone metastases who do not show satisfactory response to conventional pain therapy radionuclide therapy leads to a pain reduction in about 70–80% of patients. The objective here is to determine cost-effectiveness ratios for this pain reduction in Germany. **METHODS:** Based on the results of a double-blind, randomized, placebo-controlled trial with 141 prostate cancer patients radionuclide therapy is compared with conventional pain therapy in an economic model considering German data from literature and treatment recommendations. Incremental cost-effectiveness is presented. The effectiveness is measured by “complete pain response”. The model period is 16 weeks. Costs from the perspective of the statutory health insurance, i.e. deducting

co-payments and discounts, are also considered. Sensitivity analyses are conducted. **RESULTS:** The direct medical costs of radionuclide therapy per patient (39% complete pain response) sum up to 1990€ against 2200€ under conventional pain therapy (17% complete pain response). Radionuclide therapy is dominant. From sickness funds perspective the costs of radionuclide therapy sum up to 1890€ compared to 1870€ under conventional pain therapy. The incremental cost-effectiveness-ratio is 130€ per complete pain responder. Sensitivity analyses reveal that the exclusion of bisphosphonates from conventional pain therapy lead to costs of therapy of 1170€. The respective incremental cost-effectiveness-ratio is 3800€. From sickness funds’ perspective the costs of conventional pain therapy sum up to 990 EUR. The respective incremental cost-effectiveness-ratio is 4210€. **CONCLUSIONS:** Analgesia in patients with pain due to multiple bone metastases is achieved at lower or nearly equal costs under samarium in the base case. On the basis of this model samarium could be a cost-effective treatment option for patients with pain due to multiple bone metastases. However, to compare cost-effectiveness ratios with other treatment options further research is warranted.

**METHODS & CONCEPTS II**

MC5

**ANNUAL BURDEN OF DRY EYE SYNDROME IN SIX EUROPEAN COUNTRIES**

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**OBJECTIVE:** To estimate the annual cost of managing dry eye syndrome in secondary care in France, Germany, Italy, Spain, Sweden and the UK from the perspective of the health care system. **METHODS:** Published evidence on the epidemiology of dry eye syndrome and associated resource use were collected. This was supplemented with information on current clinical practice and associated resource utilisation obtained by interviewing specialists in the treatment of dry eye syndrome in each country. National unit resource costs (in Euros at 2003/04 prices) were applied to the resource use estimates to estimate the annual secondary care cost. **RESULTS:** The estimated prevalence of dry eye syndrome among patients reporting to specialists was greatest in Germany (0.07%) and lowest in Sweden (0.02%). An estimated 70% of sufferers were female in all six countries except Germany (58% of sufferers). Proportionally more patients experienced mild dry eye syndrome in Germany (60% of sufferers), whereas more patients experienced moderate and severe dry eye syndrome in France (65% of sufferers). The total annual health-care cost for managing 1000 dry eye syndrome sufferers in secondary care ranged from 227,000€ in France to 915,000€ in the UK. The cost per patient was highest in the UK due to the high cost of prescriptions. Specialist visits were the main cost driver in France and Spain, whereas it was prescriptions in Germany and the UK and diagnostic tests in Italy and Sweden. A large proportion of patients either self-treat or are managed by their GP. Hence, our analysis reflects the prevalence and costs of those patients severe enough to warrant treatment by a specialist. **CONCLUSIONS:** Dry eye syndrome does not appear to impose any significant burden on the secondary healthcare providers in the countries investigated.

MC6

**PRODISQ A MODULAR QUESTIONNAIRE ON PRODUCTIVITY AND DISEASE FOR ECONOMIC EVALUATION STUDIES IN PATIENT SETTINGS AND ORGANISATIONAL SETTINGS**

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